18. The arrangement of claim 16, wherein the linear density of probes arranged in a single-file row on the substrate exceeds 200 probes/linear cm.

19. The arrangement of claim 16, wherein the linear density of probes arranged in a single-file row on the substrate exceeds 500 probes/linear cm.

20. A probe-carrying tape apparatus that is configured to bind samples to form sample-probe complexes, said tape comprising

a flexible tap e substrate having a thickness not exceeding 500 micrometers, and having a surface; and

a plurality of non-identical probes immobilized on discrete areas of a probe-containing portion of the substrate surface, each of said discrete areas containing one probe.

21. The apparatus of claim 20 wherein the thickness of the tape does not exceed 100 micrometers.

22. The apparatus of claim 20 wherein the thickness of the tape does not exceed 20 micrometers.

23. A probe-carrying fiber apparatus that is configured to bind samples to form sample-probe complexes, said fiber comprising

a flexible fiber substrate having a length and a diameter, wherein the diameter does not exceed 500 micrometers, and having a surface; and

a plurality of non-identical probes immobilized on discrete areas of a probe-containing portion of the substrate surface, each of said discrete areas containing one probe.

24. The probe-carrying fiber of claim 23 wherein the diameter of the fiber does not exceed 200 micrometers.

25. The probe-carrying fiber of claim 23 wherein the diameter of the fiber does not exceed 100 micrometers.

26. The probe-carrying fiber of claim 23 wherein the diameter of the fiber does not exceed 20 micrometers.

27. An apparatus for depositing a plurality of probes on a substrate, comprising:

a reservoir comprising an array of liquid containing wells; and

a plurality of capillaries, wherein the capillaries each have a first end and a second end, said first end of each capillary is connected to a well of the reservoir to allow liquid content of the well to enter the capillary, said second end of each capillary allows the liquid to exit, and said plurality of second ends are arranged in a single-file row and are capable of depositing probes in a line.

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